

SYSTEM AND METHOD FOR POST WELD
CONDITIONING

ABSTRACT

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The present invention provides a system and method for conditioning the surface and subsurface of a tubular whereby stress risers and crevices are avoided during subsequent working of the tubular. In a preferred embodiment, the invention may be readily utilized to modify a continuous tubular manufacturing operation wherein a laser beam welder is utilized for welding the

10 seam of the tubular as the tubular is moved with respect to the laser beam welder thereby producing an elongate bead. A TIG welder is provided downstream of the laser beam welder with respect to the direction of movement of the tubular to thereby remelt the crown portion of the elongate bead thereby causing the crown portion to flatten radially and spread out along the surface of the tubular. Because the forces produced by working the hard weld nugget are spread over a wider area, the

15 conditioned weld may now be worked into the wall of the tubular utilizing standard working techniques without loss of tubular wall diameter or producing folded over portions that are more susceptible to metal fatigue.